

WHAT IS CLAIMED IS:

1. A method for providing connectivity to a second local area network for a user device configured for a first local area network, the method comprising:
intercepting packets transmitted by the user device intended for a device on the first local area network to automatically determine network settings of the user device;
modifying incompatible packets transmitted by the user device to make the packets compatible with the second local area network based on the network settings of the user device and the second local area network.

2. The method of claim 1 wherein the step of intercepting packets comprises receiving and processing packets which would otherwise be dropped by devices on the second local area network due to incompatible network settings.

3. The method of claim 1 further comprising:
automatically determining the network settings of the second local area network based on packets transmitted over the second local area network.

4. The method of claim 1 further comprising:
automatically determining the network settings of the second local area network by transmitting a Dynamic Host Control Protocol (DHCP) packet over the second local area network.

5. The method of claim 1 wherein the step of intercepting packets comprises:
intercepting an Address Resolution Protocol (ARP) message transmitted by the user device having a network address of a device on the first local area network;
and
replying to the ARP message with a Media Access Control (MAC) address of a device on the second local area network.

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6. The method of claim 1 wherein the step of intercepting packets comprises operating in a promiscuous mode to receive and process all packets transmitted by the user device.

7. The method of claim 1 wherein the step of modifying packets comprises replacing a source address with a router address where the router address is automatically determined based on the network settings of the second local area network.

8. The method of claim 7 wherein the step of modifying packets comprises replacing a source address within a packet header.

9. The method of claim 7 wherein the step of modifying packets comprises replacing a source address within contents of the packet.

10. The method of claim 1 wherein the step of intercepting packets comprises:
intercepting a Dynamic Host Control Protocol (DHCP) packet transmitted by the user device;
determining whether a DHCP server is available on the second local area network; and
replying to the DHCP packet to provide configuration settings based on network settings of the second local area network.

11. A method for providing access to a network utilizing private IP addresses for a user device having an incompatible private IP address, the method comprising:
intercepting data transmitted by the user device containing the incompatible private IP address;
modifying the data using a private IP address compatible with the network private IP addresses; and
transmitting the modified data on the network.

1 12. The method of claim 11 further comprising connecting a translator
2 to the network to perform the steps of intercepting the data transmitted by the user
3 device, modifying the data, and transmitting the data.

1 13. The method of claim 12 wherein the step of connecting comprises
2 connecting the translator between the user device and the network.

1 14. The method of claim 12 wherein the user device and translator are
2 directly connected to the network.

1 15. The method of claim 11 wherein the step of intercepting packets
2 comprises receiving and processing packets which would otherwise be dropped by
3 devices on the second local area network due to incompatible network settings.

1 16. The method of claim 11 wherein the step of intercepting packets
2 comprises operating in a promiscuous mode to receive and process all packets
3 transmitted by the user device.

1 17. The method of claim 11 wherein the step of intercepting packets
2 comprises:

3 intercepting an Address Resolution Protocol (ARP) message transmitted
4 by the user device; and

5 replying to the ARP message with a hardware address of a device on
6 the network so future messages transmitted by the user device are directed to the
7 device on the network.

1 18. A method for providing access to a network utilizing DHCP for
2 a user device configured with a static IP address, the method comprising:

3 intercepting packets transmitted by the user device to determine the
4 static IP address;

5 transmitting a DHCP request on the network to determine at least one
6 available network IP address;

[illegible]

20. The method of claim 19 wherein the user device is configured to communicate over a home network having network settings incompatible with the network, the method further comprising:

automatically determining network settings of the user device by intercepting an Address Resolution Protocol (ARP) message transmitted by the user device having a destination address of a device on the home network and replying to the ARP message by associating a Media Access Control (MAC) address of a device on the network with the destination address of the device on the home network.